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SM 1/14/08

**AMENDMENTS TO THE SPECIFICATION:**

On page 5, line 27, please add the following new paragraph:

The powder injection microchip may include a controller **11** for controlling the supply of gas via the gas supply inlet **6**. The controller **11** may be arranged, in use: (i) to supply gas via the gas supply inlet **6** to the channel **4** and the powder inlet **12** at a velocity sufficient to cause fluidization of powder at the powder inlet, (ii) to reduce the supply of gas to cause powder to pass from the powder inlet **12** and to collect in a region of the channel **4** adjacent a point where the powder inlet connects with the channel, and (iii) to repeat steps (i) and (ii) as many times as required, subsequent initialization of step (i) causing the powder collected in the channel to be moved by the gas towards the outlet **8**.

Please amend the paragraph beginning at page 9, line 9, as follows:

The gas supplied to the micro fabricated powder injection device **2** is ~~pressurised~~ pressurized above ambient pressure. Any suitable gas may be used for instance nitrogen or compressed air. The gas pressure may be controlled by the controller 11 such that the powder bed in powder inlet **12** is ~~fluidised~~ fluidized without extensive elutriation, the process in which finer particles are carried out of a ~~fluidised~~ fluidized bed owing to the fluid flow rate passing through the bed. A Y-valve (not shown) may be provided to switch the gas stream to the chip **2** on and off and may be mounted between a pressure regulating valve and the chip. The injection time and number of injections may be digitally regulated (for instance using a Microrobotics® Relay Card 5620 controlled by Microrobotics® K4 Application Board III 5525).